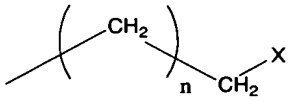
Claims

1. A process for the production of sulfoalkyl-containing polymers characterized by subjecting a polymer having a side chain containing a leaving group X represented by the structural formula (I):

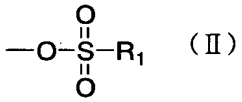


(I)

[wherein X is a leaving group, and n is an integer of 0 to 6] to substitution of X with an acylthio group, and then oxidizing the acylthio group into a sulfonic group.

2. The process for the production according to Claim 1, wherein n in said side chain (I) is 0,

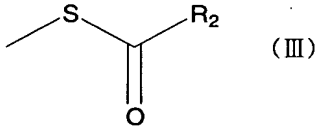
3. The process for the production of sulfoalkyl-containing polymers according to Claim 1 or 2, wherein a leaving group X is Cl, Br, I or a substituent represented by the following formula (II):



(II)

[wherein R_1 is an alkyl group having 1 to 6 carbon atoms, a perfluoro(C_1-C_3)alkyl group or an aryl group],

4. The process for the production of sulfoalkyl-containing polymers according to any of Claims 1 to 3, wherein an acylthio group represented by the following formula (III):

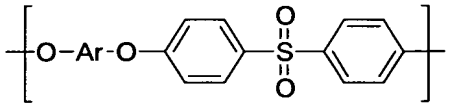


(III)

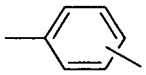
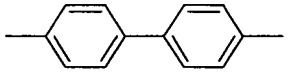
[wherein R_2 is an alkyl group having 1 to 6 carbon atoms or an

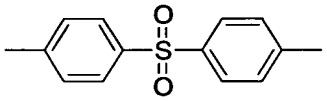
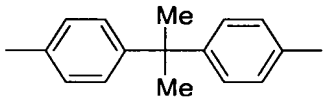
aryl group],

5. The process for the production of sulfoalkyl-containing polymers according to any one of Claims 1 to 4, wherein the backbone structure of the polymer having a side chain (I) is a polysulfone structure represented by the following formula (IV):



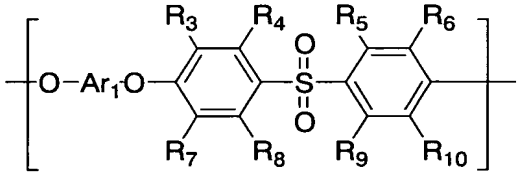
(IV)

wherein Ar is  (A1),  (A2),

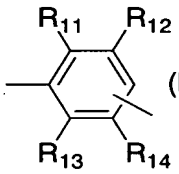
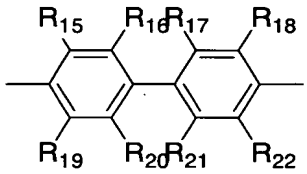
 (A3) or 

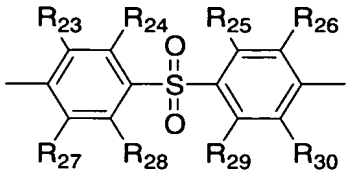
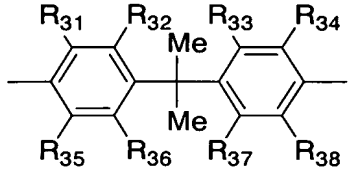
(A4)

6. A process for the production of sulfomethylated polysulfone, represented by the following formula (V):



(V)

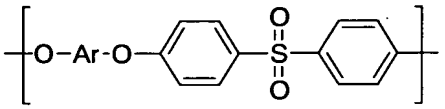
[wherein Ar_1 is  (B1),  (B2),

 (B3) or 

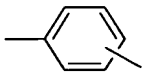
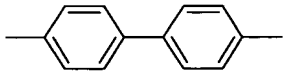
(B4)

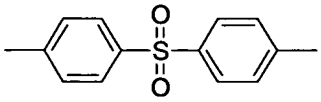
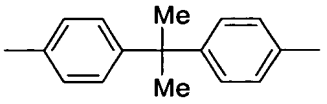
R_3 - R_{38} independently is a hydrogen atom or a sulfomethyl group],

characterized by subjecting an aromatic ring of a polysulfone polymers represented by the following formula (IV):



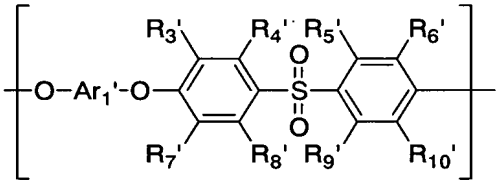
(IV)

[wherein Ar is  (A1),  (A2),

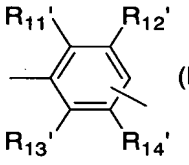
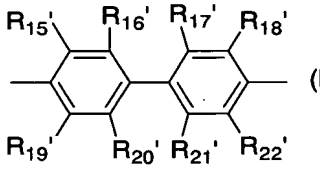
 (A3) or  (A4)

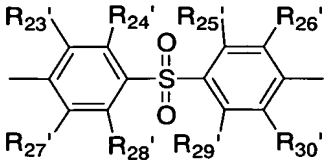
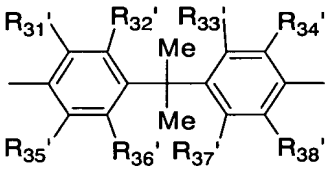
, to (a) chloromethylation, (b) then subjecting the formed chlorine to acetylthiolation, followed by further oxidation to be converted into a sulfonic group.

7. An acetylthiomethyl-containing polysulfone, represented by the following formula (VI):



(VI)

wherein Ar_1' is  (B1)',  (B2)',

 (B3)' or  (B4)'

R_3' to R_{38}' independently is a hydrogen atom, or